

Recombinant Full Length Human GNAS Protein, GST-tagged

Cat. No. GNAS-5336HF Lot. No. (See product label)

SPECIFICATION

Product Overview Human GNAS full-length ORF (NP_000507.1, 1 a.a. - 394 a.a.) recombinant protein with GST-tag at N-terminal.

Species Human

Source In Vitro Cell Free System

ProteinLength 394 amino acids

Description

This locus has a highly complex imprinted expression pattern. It gives rise to maternally, paternally, and biallelically expressed transcripts that are derived from four alternative promoters and 5 exons. Some transcripts contain a differentially methylated region (DMR) at their 5' exons, and this DMR is commonly found in imprinted genes and correlates with transcript expression. An antisense transcript is produced from an overlapping locus on the opposite strand. One of the transcripts produced from this locus, and the antisense transcript, are paternally expressed noncoding RNAs, and may regulate imprinting in this region. In addition, one of the transcripts contains a second overlapping ORF, which encodes a structurally unrelated protein - Alex. Alternative splicing of downstream exons is also observed, which results in different forms of the stimulatory G-protein alpha subunit, a key element of the classical signal transduction pathway linking receptor-ligand interactions with the activation of adenylyl cyclase and a variety of cellular responses. Multiple transcript variants encoding different isoforms have been found for this gene. Mutations in this gene result in pseudohypoparathyroidism type 1a, pseudohypoparathyroidism type 1b, Albright hereditary osteodystrophy, pseu

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dopseudohypoparathyroidism, McCune-Albright syndrome, progressive osseus heteroplasia, polyostotic fibrous dysplasia of bone, and some pituitary tumors. [provided by RefSeq]

Molecular Mass 72.1 kDa

AA Sequence
 MGCLGNSKTEDQRNEEKAQREANKKIEKQLQKDKQVYRATHRLLLLGAGESGKSTI
 VKQMRILHVNGFNNGEGGEDPQAARSNSDGEKATKVQDIKNNLKEAIETIVAAMSNL
 VPPVELANPENQFRVDYILSVMNVPDFDFPPEFYEHAKALWEDEGVRACYERSNEY
 QLIDCAQYFLDKIDVIKQADYVPSDQDLLRCRVLTS GIFETKFQVDKVNFMFDVGG
 QRDERRKWIQCFNDVTAIIFVVAASSYNMVIREDNQTNRLQEALNLFKSIWNNRWLR
 TISVILFLNKQDLLAEKVLGKSKIEDYFPEFARYTTPE DATPEPGEDPRVTRAKYFIR
 DEFLRISTASGDGRHYCYPHFTCAVDTENIRRVFNDCRDIIQRMHLRQYELL

Applications
 Enzyme-linked Immunoabsorbent Assay
 Western Blot (Recombinant protein)
 Antibody Production
 Protein Array

Notes Best use within three months from the date of receipt of this protein.

Storage Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

Storage Buffer 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name GNAS GNAS complex locus [Homo sapiens]

Official Symbol GNAS

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| Synonyms | GNAS; GNAS complex locus; GNAS1, guanine nucleotide binding protein (G protein), alpha stimulating activity polypeptide 1; protein ALEX; GNASXL; GPSA; NESP; NESP55; SCG6; secretogranin VI; extra large alphas protein; neuroendocrine secretory protein; guanine nucleotide regulatory protein; alternative gene product encoded by XL-exon; adenylate cyclase-stimulating G alpha protein; guanine nucleotide-binding protein G(s) subunit alpha isoforms XLas; guanine nucleotide binding protein (G protein), alpha stimulating activity polypeptide 1; AHO; GSA; GSP; POH; GNAS1; PHP1A; PHP1B; PHP1C; C20orf45; MGC33735; |
| Gene ID | 2778 |
| mRNA Refseq | NM_000516 |
| Protein Refseq | NP_000507 |
| MIM | 139320 |
| UniProt ID | O95467 |

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